MD. FRUIT GROWER

News Letter - August 1936

The Summer Meeting

The Annual Summer Meeting of fruit growers was held on July 22nd.

The group gathered at 10:00 A. M. at the Maryland Horticultural Farm near Beltsville and began the day with an inspection of some new early apple varieties displayed by Prof. S. W. Wentworth. Some early red varieties that were developed by the U. S. Department of Agriculture and have not as yet been named, appear promising since they ripen during the Transparent season. Lodi, an early apple of the Transparent type and season but much larger, attracted attention and some growers are desirous of trying this variety under their conditions. Lodi was developed at the New York (Geneva) Experiment Station by crossing Yellow Transparent with Montgomery.

A tour of the experimental plantings started with a cover crop experiment now in progress five years, in a block of 800 trees of young Delicious and Williams trees (half acre plots) which were seeded to various cover crops, including millet, cowpeas, Sudan grass, rye and vetch, weeds, and grass sod. Comparisons of seeding June 1st, July 1st, September 1st, double cover cropping and sod rotation are included in the test. Some preliminary statements on results showed that early covers (June 1) have competed seriously with the growth of the young trees. All covers have increased the organic content and the depth of the organic layer. All covers have reduced erosion greatly, even during the period of cultivation, compared with the erosion on plots cultivated during the season until October 1 and no cover grown. The continuous cultivation has reduced the organic content of the soil, reduced tilth and favored erosion. Trees grown under sod rotation have not grown to as large a size as trees under an annual cultivation and cover crop system.

Considerable interest was shown in the differences in the growth of apple trees, produced by different under-stocks or root-stocks. Some new clonal understocks have resulted in much larger trees than were grown by propagating on the usual French crab roots commonly used by nurserymen. The stock experiments included over 1,000 trees which are being tested in cooperative research work with the Division of Horticultural Crops and Diseases of the U. S. Department of Agriculture. Further testing is necessary before recommendations can be made.

Apple breeding work was shown in a planting of 400 seedlings which have not reached fruiting age. Each seedling is a known cross of varieties of high commercial quality, such as Golden Delicious, Northern Spy, McIntosh, Wealthy, Jonathan, Gallia Beauty and others, in an effort to produce new varieties of better quality and season.

A young Concord grape vineyard, now in fruiting, was pointed out where 1,000 vines will be used for cultural and fertilizer experiments. Many new grape varieties are being tested adjacent to the Concord planting. As the result of some breeding work on grapes at the Maryland station, some promising varieties have been produced altho not yet introduced to the grower.

At the next stop on the tour, the deshooting method of developing well-spaced scaffold limbs on the young tree was discussed and 100 five year old Stayman trees were shown, half of which were trained by the deshooting method and the other half in the usual way. The Stayman developed a much stronger scaffold by the deshooting method. It was pointed out that some varieties do not behave as nicely as Stayman with the deshooting method and some modification must be made. For instance, narrow angled crotches are formed with some varieties, but can be avoided by leaving extra scaffold limbs in the early years.

Next was shown the fruit variety plantings where four trees of each variety are being tested and many new varieties are being compared with the present commercial varieties. The plantings included 136 apple varieties, some now in fruiting, 39 pear varieties not yet fruiting, 153 peach varieties all fruiting, and 60 plum varieties, many now fruiting. Some heavily loaded nectarine trees were also seen. Since the meeting, the ripening of the peach varieties has shown that Cumberland, a white peach following Carman, appears to develop good size and quality, and Valiant, a yellow peach, ripening between Carman and Hiley, developed excellent quality and size. These two peaches are worthy of trial by Maryland growers.

One of the main ideas of the variety test plots is to try out the various new varieties for the growers and to determine the value, adaptation, or faults of the variety and advise the grower accordingly.

The last stop on the Maryland Horticultural Farm was at the experimental nursery where new root-stocks are being developed and propagated in an effort to find stocks best suited to the varieties and soils of Maryland.

The tour of the Maryland Horticultural Farm was in charge of Prof. A. F. Vierheller, Dr. A. L. Schrader, Dr. I. C. Haut, Prof. S. W. Wentworth and Dr. F. B. Lincoln.

The party moved on to the U. S. Horticultural Field Station, which is under the direction of the Bureau of Plant Industry.

Lunch was served at the spacious Log Cabin, on the Field Station Farm. Mr. Carroll R. Miller gave a short talk on "Appalachian Apples" as a means of advertising apples.

Dr. John R. Magness took charge of the tour and showed a plot of 5,000 pear seedlings which had been innoculated with pear blight to test blight resistance. The plot was planted on terraced land, the rows being in contours.

In the organic matter plots, designed to test water-holding capacity and moisture penetration, ten tons of alfalfa, three tons, and no alfalfa were turned under, in one year's trials. The check plot having no alfalfa turned under, showed very slow and poor moisture penetration when an equivalent of two inches of water per acre was applied. The three ton plot was considerably faster in "soaking up" the water, and the ten ton plot was several times faster.

After reaching the peach orchard, Dr. Goldsworthy and Dr. Roberts discussed several peach diseases. They stated that there was an old peach orchard on the farm where pruni disease or bacterial spot was unknown. However, some of the newer blocks had the disease, showing that it came in on nursery stock. This disease spreads slowly.

It was too early to show results of the experimental use of the various insoluble copper compounds. However, none of these compounds seem as effective as lime sulfur in early season, and the main use of these compounds is for application as sprays in between the lime sulfur sprays and the regular Bordeaux schedule, when either of these sprays is likely to cause injury. Some work is also being done with various spreaders and stickers, but there is nothing to report at this time.

In the peach plots, various cover crops are being tried, and the results are being checked in various ways, especially the available moisture in the soil at different times during the growing season. Included in the trial plot were:

(1) Cultivation, plus winter cover of rye and vetch, (2) Soybeans in summer, plus rye and vetch in winter, (3) Buckwheat, (4) Korean Lespedeza, (5) Sericea Lespedeza, (6) Sweet clover.

So far, the first two plots shown are the best in the order listed, that is, (1) cultivation plus winter cover has been best, with (2) soybeans and winter cover crop, next best. Under the dry conditions of the past three or four years, summer sods have not been showing up as favorably as cultivation and cover crops, as far as peaches are concerned.

Peach varieties were of considerable interest to the growers, and in addition to Cumberland, Rochester, Golden Jubilee, Eclipse, etc., the hardy varieties, Valiant, Vedette, and Veteran originated at Vineland Ontario Station, were closely inspected. There was also the Maxine variety, and the Leeton peach which appears hardy. Dr. Magness states that some bud-wood of Leeton is available for trial by growers, and will be sent to growers upon request, each grower to receive a limited amount of the wood.

Dr. Weinberger showed some peach trees grown in pots of sand, these trees having received liquid fertilizer or nutrients, but each pot having some certain fertilizer element omitted. It was interesting to observe the effect and differences in growth of the various trees where potash, nitrogen, phosphorus, sulfur, magnesium, boron, or calcium were omitted from the fertilizer treatments. Another interesting thing was two peach trees grown from seeds, one of which was planted directly, and the other seed placed in cold storage for a certain period before planting. The stored seed produced a fine seedling tree, while the other seed produced a dwarf tree a few inches tall.

At this time, the group was divided into sections, to allow interested persons to visit the greenhouses to observe the vegetable and flower breeding work, peach dormancy studies, and some of the group saw their first cranberries growing and producing fruit.

Another group visited the grape plots where varieties, training methods, and root-stock trials were observed. Another group was taken to the berry plots to look over the breeding plots of strawberry and cane fruits.

The growers were invited to visit the buildings also. It was a nice day, but a little dusty. However, the growers present declared by acclamation that it was the best summer meeting ever, and voted their thanks to the staffs of both the University and the Bureau of Plant Industry for their efforts in making the day so interesting and enjoyable.

Apple Crop Prospects

To those growers fortunate enough to belong to International Apple Association, or those who receive "The New York Packer", a crop report on apples will be "old" information. Just glancing at the August 8th issue of "The Pakcer", we find these statements: Virginia estimates a total of 8,416,000 bushels; West Virginia espects 3,520,000 bushels; Pennsylvania, 6,728,000 and Maryland 1,598,000 bushels of apples.

The U. S. Bureau of Agricultural Economics Crop Report of August 1st, shows an "indicated commercial production" (which, of course, is less than total production) as follows: Virginia, 5,625,000 bu., West Virginia, 2,448,000 bu., Pennsylvania, 2,679,000 bu., and Maryland 1,142,000 bushels. For the United States, total commercial apple production is estimated at 64,500,000 bushels compared to 93,866,000 bushels in 1935.

There is a reduced crop, generally, in the Cumberland-Shenandoah Region, excepting the Winchester section. New Hampshire about half the 5 year average; North Carolina one million bushels short; Pennsylvania 70% of normal; New Jersey about half of last year's crop; Virginia about half of last year's crop, with Yorks the heaviest set variety; Idaho about a half normal crop; Connecticut below last year; New York reports about 53% of last year's crop, with Baldwin the heaviest variety; Delaware and Massachusetts expect about 50 to 75% of last year's crop; Illinois, Michigan, Kansas, Inidana, Nebraska, Wisconsin, Missouri, Arkansas, and Ohio, report reduced apple crop prospects in varying degrees. The Northwest crop seems to be a little larger, and better than last year, with Delicious and Jonathan looking especially good. In Canada, Nova Scotia expects an increase over last year, but the other Provinces are short, with a possible reduced crop of 7% below last year. The foreign report of August 8th indicated a larger apple crop in Europe, than a year ago, but probably not a large total increase, as there was variation among the different countries. It is a little early for real definite foreign reports.

Total pear production is estimated at about one million bushels increase over 1935. Grapes appear to be about 25% less than last year's crop. The 12 important cherry-growing states, show about 14% decrease under 1935.

The U. S. report indicated considerable damage to orchards due to winter injury, and drought, in some sections.

Extension Service,
University of Maryland,
August 18, 1936.

A. F. Vierheller,
Extension Horticulturist.